REMARKS

Claims 1 to 4, 7 to 19, and 21 to 29 are pending, of which claims 1, 12, 14 and 26 are independent. Favorable reconsideration and further examination are respectfully requested.

Independent claims 1, 12 and 26 were rejected over U.S. Patent No. 6,274,937 (Ahn) in view of U.S. Patent No. 6,628,178 (Uchikoba), U.S. Patent No 6,091,310 (Utsumi), and newly-discovered U.S. Patent Publication No. 2003/0107056 (Chin). Independent claim 14 was rejected over Ahn, Uchikoba, Utsumi, and Chin in view of U.S. Patent No. 6,060,954 (Liu). The rejections of the dependent claims include rejections over the primary references and previously-cited Chakravorty, Li, Asahi, Figueroa, Daniels, and Juskey.

We respectfully traverse the rejection of the independent claims. In this regard, Chin was cited for its alleged disclosure of impedance conversion in the range claimed, namely, 5 % to 400%. In particular, the Office Action states the following:

> Ahn/Uchikoba/Utsumi do not show the specifics wherein the at least one integrated impedance converter is configured to transform an impedance of the at least one chip component by 5% to 400%.
>
> Ahn discusses the intent of the particular circuit in the invention as for converting incoming signals for the particular quality the RF circuit requires by use of a passive component network, however, the actual impedance values are not given.

> Chin shows a chip in a package orientation where a passive component network is used to convert incoming signals specifically, wherein the at least one integrated impedance converter is configured to transform an impedance of the at least one chip component by 5% to 400% [paragraph 0001, shows this device relates to use in a circuit board, and paragraph 0022, shows where this board aims to have "an impedance matching of better than 10% is readily available"]. It is noted that these impedance conversions are typical for chip packages.
>
> Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have had an orientation wherein the at least one integrated impedance converter is configured to transform an impedance of the at least one chip component by 5% to 400% in the system of Ahn/Uchikoba/Utsumi as taught by Chin, as it is well known in the art to "impedance match" external signals to the internal circuit network, for providing optimal signals to allow the internal circuits to function properly. [1]

Initially, we note that the 10% referred to in the Office Action does not appear to be a 10% conversion, but rather that there is less than a 10% difference between the impedance of the trace and the impedance of the landing pad, as described below:

> [0022] The compensation capacitors are designed to re-introduce to the landing pad enough parasitic capacitance to substantially match the trace's characteristic impedance. The length of the pad 220, along with metal strips 210 and 215 are preferably extended to the boundary of the patterned hole. This ensures impedance continuity between the pad and the trace. By way of example, an impedance matching of better than 10% is readily achievable.

As described above, it is our understanding the Chin involves matching impedances of a printed circuit board's landing pad and trace, "thereby substantially avoiding impedance discontinuity between the pad and the trace".[2] This may be done by adding metal strips (capacitance) to board's metal layer or reference plane, as shown in Fig. 2a. Accordingly, contrary to what is said in the Office Action, we do not understand Chin to describe an integrated impedance

[1] Office Action, page 5
[2] Paragraph 0009

converter configured to transform an impedance of the at least one chip component by 5 % to 400%, but rather a method of matching impedances of elements of a printed circuit board, and matching those impedances to within 10% of each other.

Furthermore, the Examiner interprets the claim term "symmetrical signal" as follows:

> wherein at least one input and/or at least one output of the at least one chip component [120] conducts a symmetrical signal [electrically conductive materials are capable of conducting symmetrical signals such as sine waves, saw waves, square waves, etc.]. [3]

As used in this application, a symmetrical signal is one of two signals that propagates along symmetrical signal lines, not a single signal.[4] We do not understand this to be disclosed in Ahn.

For at least the foregoing reasons, independent claims 1, 12, 14, and 26 are believed to be patentable over the applied art.

Dependent claims are believed to define patentable features. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this

[3] Office Action, page 3
[4] See, e.g., page 10, lines 18 to 22 of the English-language specification

paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, we respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Please charge any fees or credit any overpayment, to deposit account 06-1050, referencing Attorney Docket No. 14219-075US1.

The undersigned attorney can be reached at the address shown above. Telephone calls regarding this application should be directed to 617-521-7896.

Respectfully submitted,

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